

COLLEGE OF HAWAII MAIN CITIES WIDE INVESTIGATION OF MAINLAND PLANS

ELECTRIC LIGHT AND POWER CABLES AND TELEPHONE LINES FORCED UNDERGROUND—BEAUTY OF TROPICAL FOLIAGE HERE WOULD BE GREATLY ENHANCED—HOW MUNICIPALITIES ELSEWHERE ARE MOVING

(BY VAUGHAN MACCAUGHEY,
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At a recent meeting of the Manoa Improvement club the writer stated that "many progressive cities upon the mainland were introducing conduit systems throughout the residential districts." This statement was received with incredulity by a number of those present. The writer, to corroborate his statement and to indicate the wide use of conduits, sent to the mainland for accurate and detailed information, which is presented herewith in full.

Honolulu is behind the times in her overhead wiring and lack of conduits. The tropical beauty of the city would be enhanced many fold if street poles and wires were largely eliminated.

Underground Conduits: Although a quarter of a century ago the scheme of placing electric light and power cables underground was considered commercially impracticable, today, according to Professor Charles Zueblin, "the number of cities in which there are private conduits is legion." Many cities also possess municipal conduits, among which number are Detroit, Milwaukee, Chicago and Philadelphia, each with over 100 miles of municipal conduits, and Seattle, New York and Boston, each possessing over 50 miles of municipal conduit.

Movement to Eliminate Poles and Overhead Wires: The following cities are among those which have made definite progress towards the total elimination of overhead wires:

1. **New York City:** The city government is today negotiating for the removal of existing wires and poles, but it has the right to order removal at any time. No new wires or poles may be erected without permission. None allowed in the conduit district. Thus far all wires in Manhattan have been removed and much wire has been moved from the other boroughs. In addition to the 50 miles of city conduit above mentioned it is estimated that there are 18,000 miles of privately owned electrical conduits and subways.

2. **Chicago:** Present wires and poles may be removed from paved streets by order of the city government. There is no general law in regard to the erection of new wires and poles but the matter is handled in franchises and by cooperation with the companies. Thus far it is said that wires have been removed from all places where they would be objectionable. Professor Zueblin says of the Chicago conduits: "Chicago has found the conduit system so great a protection against storms, fires and other interferences with overhead wires that the telephone company has voluntarily put wires in subways in the residence districts."

3. **Philadelphia:** This city has no law in regard to the removal of present wires or poles or regulating the erection of new wires or poles. However, all overhead wires have been removed from the business district. As stated above the city at present possesses over 100 miles of municipal conduit.

4. **Boston:** Public utility companies are required by law to clear existing wires and poles from 5 miles of streets each year; no new wires or poles are tolerated in the underground district, but in other places permission may be obtained when justified by sufficient reasons. Wires and poles throughout the city to a large extent have been eliminated.

5. **Cleveland:** Each company, choosing the district, must remove 14 miles per year of wires and poles. There is no law to prohibit the erection of new poles and wires, except in the conduit district. (This department has no data easily accessible in regard to the extent of the conduit system.)

6. **Baltimore:** The Electric Commission has the power to order the removal of poles and wires; new poles or wires are subject to permit—they usually are allowed if outside conduit district. A large area in the built-up district of the city has been cleared entirely of overhead wires. Baltimore "not only has a larger municipal conduit system than any other city, but probably has done more than all of the cities in America in municipal provision for buried wires." (Zueblin) \$2,000,000 has been appropriated for a conduit or subway system in which to put wires, etc. A half million dollars was spent in 1913 and by January, 1914, the city had built 175 miles of conduit. A separate system of 26 1/2 miles of conduit is for police and fire telegraph; the telephone company owns over 50 miles of conduit. Nearly 3,000,000 feet of cable are housed in the municipal conduit system from which the city derives a revenue of \$125,000, not including the \$15,000 municipal service which should be credited to the city. The "American City," in its issue of June, 1916, has published an article by Mayor Preston of Baltimore which illustrates and describes the city's conduit system.

7. **Pittsburg:** No new poles or wires allowed in the conduit zone—elsewhere by permission. Two ordinances aiming at the elimination of overhead wires and poles from all streets were introduced in the city council in the months of January and February, 1916. The first of these two ordinances has been passed and approved. It provides for the placing underground of all overhead telephone and telegraph lines on Grant Boulevard between Seventh avenue and Center avenue—the work to be completed by October, 1916. The second ordinance provides for the removal of all overhead wires and their supporting poles, except trolley wires and their supports, from all Pittsburg streets and alleys. At present it is being advocated that arrangement be made so that the second ordinance, if passed, be put in force very gradually. (Monthly Bulletin, Civic Club of Allegheny County, March, 1916.)

8. **Detroit:** No new wires or poles are allowed to be erected within half a mile of the city hall; elsewhere by

permit. It is stated that the companies themselves have taken the initiative in the removal of existing poles and wires and that thus far legislation has not been necessary. The district within half a mile of the city hall has been cleared and some degree of progress has been made elsewhere. As mentioned above Detroit possesses over 100 miles of municipally-owned conduit.

9. **San Francisco:** Companies operating before 1911 may erect new wires and poles without permit; companies operating since 1911 must first obtain permission; no poles or wires allowed in underground district. Present wires and poles must be removed at the rate of 2 1/2 miles of street per year. Twenty-two and one half miles of streets have thus far been cleared.

10. **Milwaukee:** New wires and poles are allowed except in the downtown district. Existing wires and poles are removed as streets are repaved. The city, as stated above, possesses over 100 miles of municipal conduit.

11. **Cincinnati:** There is no law in this city prohibiting the erection of new wires or poles. When found necessary the city may order the removal of existing wires and poles. No specific law has been passed.

12. **Washington:** The erection of electric light and power wires is prohibited in fire limits. Generally speaking, existing poles and wires must be removed from within fire limits. Progress of wires' removal: All telegraph wires in fire limits; almost all lighting wires in fire limits. Up to June 30, 1913, the street railways had nearly 1,000,000 feet of conduit, the telephone company nearly 700,000 feet and the telegraph companies nearly 100,000, making a total of 1,800,000 feet, not including over two miles of Federal conduit and pipe lines. According to Charles Zueblin: "In the disposal of overhead wires Washington excels in civic art, Baltimore in municipal science."

13. **Minneapolis:** Has no specific law in regard to the erection of new poles and wires but certain blocks, each year, must be cleared of existing wires and poles in accordance with orders of city council. Fifty-four miles of streets thus far have been cleared.

14. **Jersey City:** Erection of new poles and wires must be authorized by the commissioners. Commissioners may also order the removal of existing wires or poles.

15. **Kansas City, Mo.:** New wires and poles may be allowed by ordinance; others by permit from board of public works; none allowed in underground section. Existing poles and wires must be removed from certain downtown area. The downtown section has been about cleared. This city, as mentioned above, has over 50 miles of municipal conduit.

16. **Seattle:** No new poles may be erected in the underground district; removal of existing poles and wires from business district must be completed in 3 years. Downtown section now about cleared. This city, as mentioned above, has over 50 miles of municipal conduit.

17. **Los Angeles:** New poles and wires are prohibited in the conduit district; elsewhere by permit. Two miles or more of streets must be cleared of overhead wires each year in accordance with the direction of council.

18. **Utica, N. Y.:** This city has constructed 96.69 duct, lines at an approximate cost of \$1,056, per duct mile. The type of construction is: Tile or fire conduit encased in concrete with concrete or brick manholes and distributor boxes. The public service corporations pay the city 4 cents per duct foot for use of conduit. Revenue is sufficient to pay cost of maintenance and interest on investment. City is contemplating additional construction. Revenue receipts, 1911—\$4,767.

19. **Auburn, N. Y.:** 464,885 duct feet of conduit has been installed at a cost of 237 1/2 per duct foot. Type of construction: Tile and fibre duct, in concrete. Public service corporations pay the city 5 cents per duct foot per year for use of conduit. City reports only 22 per cent of ducts are leased hence revenue is not sufficient to pay maintenance cost and interest on investment. The approximate cost to the city was \$1,000 per year. Revenue receipts, 1911—\$4,767.

20. **Binghamton, N. Y.:** Has built 4,228 linear feet of conduit, as follows: 1,310 of 15 duct; 1,434 of 10 duct; 236 of 8 duct; 1,156 of 6 duct; and 84 of 4 duct. Average cost of installation, \$15 per linear foot. Type of construction: Vitrified tile ducts, 3 1/2 inches square, bore, encased in concrete shell, single ducts laid with alternate joints, double manholes with compartment for high tension and one for low tension wires. Further construction contemplated. City reports that a rental of about 6 cents per duct foot per year is charged against the several public service corporations "which amount pays all interest on bonds."

21. **Oswego, N. Y.:** 1,761 feet of conduit have been laid at a cost of \$3.00 per foot. Types of construction 6-12 and 18 duct, vitrified tile encased in 5 inches of concrete. Conduit not now in use. City contemplates additional construction.

22. **Port Jervis, N. Y.:** This city has laid 1 1/4 miles of safety cables in the ground for electric light.

23. **Geneva, N. Y.:** Owns municipal conduits, which it rents to public service corporations at 5 cents per linear duct foot.

24. **Buffalo, N. Y.:** City owns only a small amount of main and lateral conduits for its police and fire departments. The two telephone and electric light companies are required, under their franchises, to furnish space in their conduits free for the use of the city's fire and police wires. Two miles of streets annually must be cleared of overhead wires; the streets to be cleared are decided upon by the department of public works. This department has just recommended that

this figure be increased to 4 instead of 2 miles of streets per year. About 24 miles of streets have thus far been cleared. The utility companies use multiple tile duct conduits generally in their construction and recently the electric light company has been using fibre duct encased in Portland cement concrete (in most of the smaller New York state cities the conduits have been laid by private corporations under franchise created by the city.)

25. **Erie, Pa.:** The United States Bureau of the Census in 1909 reported this city as having a total conduit mileage of 44.60 miles. City rental receipts, 1911; \$3003.

26. **Davenport, Ia.:** The United States Bureau of the Census in 1909 reported this city as having a total conduit mileage of 17.02 miles, of which 6 were used exclusively by the city.

27. **Des Moines, Ia.:** 1909 Census Report: 14.75 total mileage, of which 5 is used exclusively by city.

28. **Grand Rapids, Mich.:** 1909 Census: 5.83 total mileage; 2.16 used by city.

29. **Fall River, Mass.:** 1909 Census: 4.00 total mileage; 4.00 used by city.

30. **New Castle, Pa.:** 1909 Census: 3.50 total mileage: 1. used by city.

31. **Portland, Me.:** 1909 Census: 2.50 total mileage: 2.50 used by city.

32. **Portland, Ore.:** 1909 Census: 1.00 total mileage.

33. **New Britain, Conn.:** 1909 Census: 1.50 total mileage. 1911 Census gives revenue receipts as \$3,270.

34. **Salem, Mass.:** 1909 Census: 1.00 total mileage.

35. **St. Joseph, Mo.:** 1909 Census: 6.2 total mileage.

36. **St. Louis, Mo.:** 1909 Census: .60 used by city.

37. **Oakland, Cal.:** 1909 Census: .20 total mileage, .20 used by city.

38. **Lancaster, Pa.:** 1909 Census: .20 total mileage.

39. **Pueblo, Cal.:** 1909 Census: .06 total mileage; .06 used by city.

According to the 1911 Census (See Reference No. 7, below), page 183, only 5 cities of all those having conduits in that year obtained revenue from them.

References:—The following publications, most of which have been consulted in connection with the compilation of this report, may be referred to if desirable:

1. "Report on Removal of Wires and Poles from Streets." Compiled by St. Louis Municipal Reference Library, Andrew Linn Bostwick, Librarian. 3 pp. April 21, 1916. (This report was

reprinted as an article entitled "Overhead Wires in Streets" in the June 8, 1916, issue of "Municipal Journal.")

2. "Municipal Subways in New York State." Report No. 87 of the New York State Bureau of Municipal Information of the N. Y. State Conference of Mayors and other City Officials, Wm. P. Capes, Director. Albany. 2 pp. Jan. 29, 1916.

3. "American Municipal Progress." By Chas. Zueblin. (New York, 1916). (See section of "Overhead Wires" commencing on page 62, and references in the several pages following.)

4. "Ordinances of Various Cities Regulating the Placing of Wires Underground." Milwaukee Municipal Reference Library. 5 pp. November, 1914.

5. "The Removal of Overhead Wires." By Frederick L. Ford. American Civic Association, Leaflet No. 13, March, 1907.

6. "General Statistics of Cities: 1900." Special Report Bureau of the Census, U. S. Department of Commerce.

7. "Financial Statistics of Cities: 1911." Special Report Bureau of the Census, U. S. Department of Commerce.

NICK PLAYS WITH MUCH CHEAPER DECK NOWADAYS

LONDON, Eng., Oct. 15.—According to a Petrograd despatch, Nicholas Romanoff, the deposed Russian emperor, passes a great deal of his time playing whist, of which he is very fond. In pre-war times whist was one of the most popular court diversions in Russia, and the emperor had a special de luxe card which was made for his exclusive use. One thousand two hundred packs of these imperial cards were used every year, and they cost the Russian government about \$7 a pack, being made of the finest linen rags, with a watermark of the imperial crown and eagle.

IOWA MAN CREATES SELF-POPPING CORN

ARTHUR, Ia.—Jerry Fiske has made his fortune by out-Burbanking Burbank with the creation of self-popping popcorn. He developed it by crossing common popcorn with red peppers, producing a latent heat. The corn, immediately upon being harvested, must be stored in a cellar or other cool place. When it is dry it will automatically pop in any average warm room.

LONDON WOMEN EAGER TO ACCEPT DRESS STANDARD

(By Associated Press)

LONDON, England.—There has never been a time when women were more willing to accept standard dress or uniforms than they are at present.

That is the most marked effect of the war upon women's dress. All uniforms have acquired dignity in women's eyes. The housemaid does not object to the cap and apron badge of servitude, the worker in the bank dons an overall cheerfully, women in various organizations wear their khaki, the Red Cross and volunteer aid workers are proud of their uniforms.

An expert French designer, discussing these changes, says:

"There always will be the women who want frilleries, the women who try to insist upon something quite different from the style of the moment, but nowadays their number is greatly diminished. The uniform idea has arrived. It may mean the total extinction of dressmaking as a creative art, but there will be developments on other lines."

"There has never been a great war which has not influenced fashion in a picturesque or even gruesome fashion, and this world war has done its share. We had a fashion adopted as a compliment to each Ally, the Russian caps and tunics, the Bersagliere hats of the Italian soldiers, and the Serbian colors. Scotch plaids have given the Parisiennes great joy."

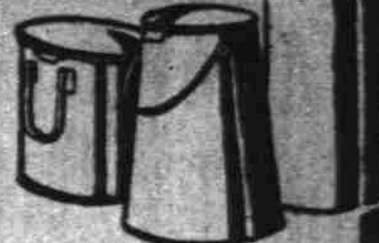
"Khaki shades are in vogue for spring and summer costumes, and the blue-gray, with touches of crimson, of the French uniforms, is seen here and there."

TRUCK SOLD

The von Hamm-Young Co. reported the sale of a Federal truck to the Gomes Express Co. this week. The express company now has five trucks in service and has been forced to hire an extra one this week to take care of unexpected business.



Most of us are dependent
on a milk supply which
is far from satisfactory!



The cows may be unhealthy—the supply may take too long to reach us, it may be poor in quality, the milk is subject to contamination by disease germs, it may be watered and by not too clean water at that.

And yet there's a remedy at hand.

In thousands of homes throughout Australasia and the Pacific the milkman has been superseded by a tin bearing the famous Highlander Brand.

Highlander Condensed milk (full cream) is absolutely germ free—the milk is drawn from healthy cows subject to Government inspection on the rich pastures of Southland, New Zealand, while the processes of filtration and evaporation remove all dirt and destroy all disease germs. The milk is condensed within a few hours of leaving the cows.

Highlander quality is the highest in the world—full cream. Why not prove it for yourself? It costs but little to buy a can, and you'll find that it helps to solve the milk problem simply and economically.

HIGHLANDER

Condensed MILK

A Big Cookery Book FREE

There's a free copy of the Highlander Cookery Book awaiting you—nearly 200 beautifully illustrated pages of practical, economical tested recipes. Send your name and address to-day to "Highlander," Dept. "A," Fred L. Waldron, Ltd., Agents, Honolulu.

(LOTT 557)



Your Shopping Problems Are SOLVED!

The BOSTON STORE, at 150 North King Street, is offering bargains that should appeal to every man or woman in Honolulu who appreciates the value of a dollar and wants to make it go as far as possible. Read the list over. Can you imagine better opportunities?

This Big Sale Is Now In Full Swing

We have a full line of LADIES' SILK SWEATERS which will be marked down
Values \$25.00, \$20.00 and \$15.00 will go at.....\$12.95
Values \$15.00 and \$10.00 will go at.....5.95
All-wool hand-knitted, values \$8.00 and \$10.00.....4.95
Special extra values, \$7.50.....3.95
1 lot Assorted, \$7.00, \$8.00 and \$9.00 values.....3.95
LADIES' SUITS AND COATS, suitable for traveling, all fine serge and wool, reduced from \$30.00 and \$40.00 to.....10.00
LADIES' COTTON CREPE DRESSES all reduced 25 per cent.
LADIES' NIGHT GOWNS.....75c, 95c, \$1.15, \$1.25; \$1.95
CREPE DE CHINE UNDERSKIRTS.....\$3.95
CORSET COVERS.....25c up
LADIES' VESTS......2 for 25c
BRASSIERES.....75c
SILK SHIRT WAISTS.....\$3.95
LINEN AND VOILE SHIRT WAISTS.....95c and up
SILKALINE KIMONOS.....\$2.95
FRENCH CREPE.....\$1.65
300 LADIES' DRESSES.....\$1.95
100 dozen LADIES' TAN HOSE.....10c a pair
100 dozen LADIES' BLACK HOSE.....20c a pair
25-dozen LADIES' SILK HOSE.....45c a pair
20 dozen LADIES' WHITE SILK HOSE.....65c a pair
CHILDREN'S WHITE DRESSES, sizes 1 to 16.....30c to \$3.95
CHILDREN'S GINGHAM PLAIDS.....35c upward
CHILDREN'S ROMPERS.....30c to 85c
1 lot of LADIES' FINE CORSETS.....45c
1 lot of LADIES' FINE CORSETS.....95c
SHEETS, PILLOW CASES, BED SPREADS.

EMBROIDERED PILLOW CASES.....45c each; 2 for 75c
100 dozen TURKISH TOWELS.....10c each
50 dozen TURKISH TOWELS.....20c each
50 dozen TURKISH TOWELS.....25c each
15 dozen TURKISH TOWELS.....35c and 45c each
SHOES FOR MEN AND CHILDREN will be cut 20 per cent.
CHILDREN'S MARY JANES.....\$1.65 to \$1.75
BOYS' SUITS.....\$4.75 to \$6.25
100 MEN'S SUITS.....\$11.65
SILK UNDERSHIRTS AND DRAWERS, knee drawers.....75c per garment
We have NECKTIES, UNDERSHIRTS, DRAWERS, PAJAMAS, NIGHT-GOWNS and a thousand different articles that we are unable to mention here
MEN'S CAPS, Silk and Wool.....35c each
GARTERS, good quality.....10c a pair
TOILET POWDER, worth 15c a tin, will sell at.....3 tins for 25c
TOILET SOAP, fine, good for the bath tub.....15c
TOILET SOAP, fine quality.....20c
PANAMA HATS, worth \$6.50, will sell for.....\$3.95
GOOD QUALITY BELTS will go at.....20c to 25c each
1 lot of CANVAS SHOES, rubber bottoms, will go at.....75c
1 lot of LADIES' BACK COMBS, latest novelty, for.....25c to \$1.95 each
A few dozen LADIES' WAISTS.....\$1.75
MEN'S SCRIVEN DRAWERS, sell for \$1.00 everywhere.....65c
1 lot MEN'S WOOLEN SHIRTS, good for outing, from.....\$1.50 to \$2.95
1 lot of GENTS' LINEN COLLARS will go at.....5c each
1 lot of GENTS' WHITE SHIRTS, sizes 16 to 17, regular \$1.50, at.....50c
1 lot BOYS' AND GIRLS' OVERCOATS, all wool, values to \$10, go at \$3.95
TRUNKS AND SUITCASES; prices cut in proportion.
1 lot of RIBBON; your choice, per piece, at.....5c, 10c, 15c

This Sale Is Now In Full Swing

BOSTON STORE

150 North King St., op. Fishmarket
L. M. AMIEL, Prop.

